

REMARKS

The claims have been amended to simplify prosecution. Claims 47 and 49 are directed to treating Gram negative bacteria that excrete a mucoid exopolysaccharide. Thus, these claims contain some of the limitations of claims 53 and 57. As "derivative" was criticized, a substitution based on the description in the specification at page 14, lines 18-20, was made. No new matter has been added and entry of the amendment is respectfully requested.

The Invention

The invention resides in the discovery that propionic acid or compounds which contain propionic acid as a portion of their structure are able to inhibit the growth of Gram negative bacteria when the Gram negative bacteria excrete a mucoid exopolysaccharide. The working example is of such a bacterial type. Thus, the invention provides a way to control bacterial growth by essentially inhibiting its ability to excrete a biofilm which might aid in infection.

The Rejection Under 35 U.S.C. § 112, Paragraph 1

Claims 47-52, 55 and 56 were rejected under 35 U.S.C. § 112, paragraph 1, as having scope that goes beyond the teachings of the specification. The Office asserts that the specification's documentation of actual inhibition is too limited to support the scope of the claims as previously pending.

It is respectfully submitted that the claims as currently proposed are of a scope justified by the disclosure. The ability of propionic acid or its related compounds to inhibit growth or to inhibit the production of exopolysaccharide is limited to Gram negative bacteria which actually do excrete a biofilm of exopolysaccharide. Accordingly, in view of the amendment, it is believed that this basis for rejection may be written description.

The Rejection Under 35 U.S.C. § 112, Paragraph 2

All claims, claims 47-58, were rejected as indefinite with regard to the terms "mucoid organism" and "propionic acid or a derivative thereof." It is believed that the amendment to the claim is responsive with respect to the aspect of the rejection related to the organism as well. The terms objected to no longer appear. Accordingly, this basis for rejection may also be withdrawn.

The Rejection Under 35 U.S.C. § 102

Claims 47-52 and 55-56 were rejected as assertedly anticipated by Chowdhury, *et al.* Chowdhury discloses the use of ibuprofen to inhibit the growth of Gram positive bacteria. As the claims have now been limited to Gram negative bacteria, Chowdhury no longer anticipates the claimed subject matter. Accordingly, this basis for rejection may be withdrawn in light of the amendment to the claims.

Allowable Claims

Applicants note with appreciation that claims 53-54 and 57-58 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, first and second paragraphs. It is believed that this has been done and that therefore these claims, at a minimum, are in a position for allowance. Applicants believe that the rejection of claims 47-50 has been overcome by amendment as well.

Therefore, it appears that claims 47-50, 53-54 and 57-58 are in a position for allowance and passage of these claims to issue is respectfully requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to

charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 524182000400.

Respectfully submitted,

Dated: January **22**, 2003

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EXHIBIT A. - VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

47. (Amended) A method to inhibit the growth and development of [a mucoid organism] Gram negative bacteria that excrete a mucoid exopolysaccharide, which method comprises contacting said [organism] bacteria with a composition which comprises propionic acid or a [derivative thereof] compound containing a propionic acid backbone.

48. (Amended) The method of claim 47, wherein said composition comprises [a derivative of propionic acid which is] 2-(4-isobutylphenyl)-propionic acid.

49. (Amended) A method to inhibit biofilm production by [a mucoid organism] Gram negative bacteria that excrete a mucoid exopolysaccharide, which method comprises contacting said organism with a composition which comprises propionic acid or a [derivative thereof] compound containing a propionic acid backbone.

50. (Amended) The method of claim 49, wherein said composition comprises [a derivative of propionic acid which is] 2-(4-isobutylphenyl)-propionic acid.

53. (Amended) The method of claim [52] 47, wherein the bacterium is characterized as being Gram negative, bacilliary, about 0.2X0.8 μ m, facultative anaerobe, grows between 15° and 45°C with a temperature optimum of 37°C, grows between pH 4-11 but not at pH 2, grows in AB13 medium or minimal medium, is motile, lacks a capsule, lacks spores, and produces an elastic, exopolysaccharide with a sugar content of galactose, fucose, glucose, mannose in a ratio of about 1:2:3:6.

54. (Amended) The method of claim [52] 47, wherein said bacterium produces an exopolysaccharide consisting essentially of neutral sugars migrating at the same rate as mannose, fucose, fructose and galactose, acidic sugars migrating at the same rate as fucose and amine sugars migrating at the same rate as glucose and fucose, wherein the sugar ratio of galactose:fucose:glucose:mannose is about 1:2:3:6.

57. (Amended) The method of claim [56] 49, wherein the bacterium is characterized as being Gram negative, bacilliary, about $0.2 \times 0.8 \mu\text{m}$, facultative anaerobe, grows between 15° and 45°C with a temperature optimum of 37°C , grows between pH 4-11 but not at pH 2, grows in AB13 medium or minimal medium, is motile, lacks a capsule, lacks spores, and produces an elastic, exopolysaccharide with a sugar content of galactose, fucose, glucose, mannose in a ratio of about 1:2:3:6.

58. (Amended) The method of claim [56] 49, wherein said bacterium produces an exopolysaccharide consisting essentially of neutral sugars migrating at the same rate as mannose, fucose, fructose and galactose, acidic sugars migrating at the same rate as fucose and amine sugars migrating at the same rate as glucose and fucose, wherein the sugar ratio of galactose:fucose:glucose:mannose is about 1:2:3:6.